III. Remarks

Claims 1 through 23 are pending in the application. Claims 2, 9, 10, 16, 17 and 23 have been cancelled. Claims 1, 8, 13, 15 and 18 have been amended. No new claims have been added. Thus, claims 1, 3 through 8, 11 through 15, and 18 through 22 remain under consideration.

Rejections Under 35 U.S.C § 112

Claim 18 was rejected under 35 U.S.C § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, claim 18 depends from claim 17 and allegedly repeats the language of claim 17. Responsive thereto, claim 18 has been amended to eliminate repetitive language. It is submitted that claim 18, as amended, conforms with 35 U.S.C. 112, second paragraph, and that the rejection based thereon should be withdrawn.

Rejections Under 35 USC § 102

Claims 1, 6 through 8, 13 through 15 and 21 through 23 were rejected under 35 USC §102(a) as being anticipated by U.S. Patent No. 6,595,338 issued to Bansbach et al. (Bansbach).

Bansbach discloses a torque transfer clutch with a linear piston hydraulic actuator. Bansbach includes an electric motor driving a lead screw through a single pinion and spur gear. The lead screw translates a piston which provides pressurized hydraulic fluid to a piston and adjacent clutch assembly. Bansbach neither teaches nor suggests a multiple pinion and spur gear train, a pressure sensor nor an anti-

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back lash or anti-backdrive configuration. This latter omission seriously interferes with operation of the device as the hydraulic circuit and friction clutch would therefore be incapable of maintaining a desired torque throughput unless the electric motor were to be constantly energized. This not only consumes electricity but may adversely affect the service life the device. All three independent claims have been revised to incorporate limitations directed to the anti-backdrive component. Claim 15 also now recites that the gear train includes at least two pinions and two spur gears. As the claims are amended, Bansbach does not anticipate nor suggest the claimed invention.

Claims 1, 4, 8 11, 15 and 19 were rejected under 35 USC §102(b) as being anticipated by U.S. Patent Publication No. 2002/0162328 A1 issued to Shaw et al. (Shaw).

Shaw discloses a rudimentary system and method for actuating and controlling a transfer case. The system appears to utilize, in Figure 1, hydraulic fluid from a braking system or, in Figures 2 and 3, incorporate a motor, lead screw and piston assembly virtually the same as Bansbach. Here, too, a single pinion and spur gear are utilized to drive the lead screw. The abbreviated nature of Shaw's disclosure calls into question the Examiner's reliance thereupon. For example, Shaw states that a first device can be a clutch pack 166 but teaches nothing regarding the configuration of the clutch pack, its location or how it is integrated into a vehicle. Moreover, Shaw is silent with regard to any need for, much less any disclosure or suggestion regarding, an anti-backdrive assembly. Given the nature of this disclosure and the revised claims, Shaw clearly neither anticipates nor suggests claims 1, 4, 8, 11, 15 and 19.

Rejections Under 35 USC § 103

Claims 1 through 5, 8 through 12, 15 through 20 and 22 were rejected under 35 USC §103(a) as being unpatentable over Shaw in view of U.S. Patent No. 5,611,407 issued to Maehara et al. (Maehara).

Maehara teaches a driving force distribution control system having a hydraulic pressure supply device 100 which is in fluid communication with a variable torque control device 30 having an operating cylinder 40. This reference is apparently relied upon for its disclosure of an anti-back drive device illustrated in Figures 12(a) and 12(b). The Maehara back drive device is taught in conjunction with a freestanding hydraulic unit 100 that is not combined, as Applicants' claims require, a unitary clutch and hydraulic drive device. For example, Maehara teaches little regarding the "clutch device 30 which comprises a multiple disc plates," (col. 4, line 40) and nothing regarding the hydraulic clutch components such as the annular piston. Accordingly, Maehara does not disclose the components of Applicants' device nor disclose them in the configuration and with the relationships disclosed and claimed by Applicants. Moreover, it does not cure the defects of the Shaw reference. Lastly, neither reference includes suggestions to modify or combine one with the other. As amended, the claims define non-obvious subject matter and distinguish over the Shaw and Maehara references taken together.

Claims 5, 12 and 20 were further rejected under 35 USC §103(a) as being unpatentable over Shaw in view of Maehara as applied to claims 1, 8 and 15 above and further in view of U.S. Patent No. 5,934,432 issued to Bates (Bates).

The Shaw and Maehara references have been discussed above and such discussion is incorporated herein by reference. Bates teaches an actuator system

for automated clutches of a motor vehicle. Here, the clutch is the vehicle master clutch, not a secondary driveline clutch. As such, this patent has little relevance to the present electrohydraulic device utilized to transfer torque in a secondary motor vehicle driveline. Clearly therefore, it does not cure the defects of the Shaw and Maehara references taken together. Finally, there is simply no suggestion within or amongst the three references to combine them in a fashion which either duplicates or renders Applicants' claimed invention obvious. Claims 5, 12 and 20 are patentable under a proper interpretation of 35 U.S.C. §103.

SUMMARY

Pending Claims 1, 3 through 8, 11 through 15, and 18 through 22 as amended are patentable. Applicants respectfully request the Examiner grant allowance of these claims. The Examiner is invited to contact the undersigned attorneys for the Applicants via telephone if such communication would expedite this application.

Respectfully submitted,

August 11, 2005
Date

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Attachment: Replacement Sheet of Drawings (Fig. 3)

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II. Amendments to the Drawings

A replacement drawing sheet includes a revised Figure 3 which now includes a numerical callout "230" and lead line which designates an annular piston. It is submitted that this amendment to the drawings overcomes the objection to the drawings under 37 C.F.R. §1.84(p)(5) appearing on page two of the Office Action of May 11, 2005.

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